

WATER SUPPLIES DEPARTMENT
STANDARD SPECIFICATION E-82-12
SIGNAL CONVERTERS

1. **GENERAL**

Signal converters are used to provide isolation of input analogue circuits and to transmit the output signals at the required range or form.

The signal converters shall comply with the latest version of the relevant international standards listed below:

IEC 60715 Dimensions of low voltage switchgear and controlgear -
Standardised mounting on rails for mechanical support of
switchgear, controlgear and accessories

IEC 60529 Degrees of protection provided by enclosures (IP code)

2. **DESIGN**

Signal converters shall meet the following design requirements :-

(a) **General**

Number of signals : 1 transmitter for up to 2 input signals

Isolation : Better than 1000V a.c./d.c. between input and
output

Power supply : 220V 50 Hz or 24Vd.c. or loop powered

Operating temperature : 0 -55°C

Mounting : DIN rail to IEC 60715

Enclosure (where
specified) : IP54 to IEC60529 with E1W type cable glands

(b) **Input**

Input signal : 0-10 mA, 4-20 mA, mV, V or variable resistance
as specified

Input resistance : Not exceeding 250 ohms for current input

Greater than 1 M-ohms for voltage input

(c) Output

Output signal : 4-20 mA proportional to input

Accuracy : Better than $\pm 0.3\%$ of span

Minimum driving output : 500 ohms
load

Open circuit voltage : <28V d.c.

- End of this Specification -